Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Section 2.106 of the	)	ET Docket No. 95-18
Commission's Rules to Allocate	)	RM-7927
Spectrum at 2 GHz for Use	)	
By The Mobile-Satellite Service	)	

REPLY COMMENTS

Constellation Communications, Inc. ("Constellation"), by its attorney, files these Reply Comments to the Comments filed by other parties on the Commission's proposal to allocate the 1990-2025 MHz (Earth-to-space) and 2165-2200 MHz (space-to-Earth) bands to the mobile-satellite service ("MSS") presented by the Commission's Notice of Proposed Rule Making ("Notice")[1] in this proceeding.

Constellation is an applicant for a low-Earth orbit ("LEO") satellite system in the 1610-1626.5 MHz and 2485.5-2500 MHz bands.[2] In its initial comments in this proceeding, Constellation stated its belief that the proposed 2 GHz MSS allocations are necessary for the expansion of the initial 1.6/2.4 GHz LEO MSS systems and for the development of additional satellite-based personal communications services in the future.[3] However, Constellation also indicated that the Notice discusses a number of other matters which are premature and should be deferred to a later date. Constellation believes that the comments filed in this proceeding

[1] See FCC 95-39 released January 31, 1995.

[2] See Application File Nos. 17-DSS-P-91(48) and CSS-91-013, as amended on November 16, 1994.

[3] See Comments filed by Constellation Communications on May 5, 1995.

provide a framework for a more efficient and less costly approach to accommodating the requirements of MSS than is currently set forth in the Notice.

As discussed below, Constellation believes that the Commission should take the following course of action in implementing 2 GHz MSS allocations:

- Add MSS to the domestic table of allocations in the bands 1990-2025 MHz and 2165-2200 MHz for domestic planning purposes;
- Revisit these allocations as part of the rulemaking to implement the Final Acts of the 1995 World Radiocommunication Conference ("WRC") before any further domestic implementation of licensing activities are begun;
- Undertake and complete detailed technical studies of the feasibility of sharing between MSS and the fixed service in the 2165-2200 MHz band, as well as technical standards studies and other auxiliary broadcast service allocation proceedings with respect to the need to expand the auxiliary broadcast band above 2010 MHz; and
- Defer any decision on auctioning 2 GHz MSS spectrum until final MSS service rules are adopted.

Domestic Allocations

Constellation believes that the record clearly demonstrates the need for additional MSS spectrum at 2 GHz.[4] In light of the Commission's decision to include the international MSS frequencies below 1990 MHz in the band allocated domestically for personal communications services, the proposal to provide 35 MHz for MSS in the United States by extending the international MSS allocation from 2020 to 2025 MHz is a reasonable approach to satisfying the spectrum requirements of MSS. For this reason, Constellation believes that the Commission

[4] Constellation disagrees with Southwestern Bell Mobile Systems that only 20 MHz should be allocated to MSS.

should amend its national table of allocations to include the MSS in the bands proposed in the Notice.

WRC-95 Implementation

Further action to implement MSS allocations in the 2 GHz portion of the Spectrum will have to await the outcome of WRC-95 because these national MSS allocations are not fully consistent with the current international allocations. Non-GSO MSS systems provide global service and require bands that are allocated on a worldwide basis for their operation.[5] GSO systems, on the other hand, can provide domestic and regional MSS service in allocations established on a regional basis or by country footnote.[6] If the international allocations are not conformed to the U.S. allocations as proposed in IC Docket No. 94-31 dealing with WRC-95 proposals, the Commission should reserve the common band (i.e., 1990-2010 MHz) for non-GSO systems.[7]

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[5] Constellation agrees that GSO and non-GSO MSS systems are likely to have significantly different technical characteristics which will make sharing difficult. See e.g., Motorola Comments at 10-11. However, Constellation disagrees with Teledesic that the distinction between GSO and non-GSO requires the elimination of the FSS/MSS distinction (see Teledesic Comments at 6-8) since substantial technical differences will remain between FSS and MSS.

[6] Constellations disagrees with Celsat that these bands should be reserved for GSO systems. See Comments of Celsat America, Inc. at 11.

[7] In the event that world-wide MSS allocations do not coincide with the U.S. domestic allocations, the Commission should not preclude its MSS licensees from operating outside the U.S. in the world-wide allocated bands.

Terrestrial Relocations

Constellation believes that a mandatory relocation policy as proposed in the Notice is impractical if the $2.5 to $3 billion relocation costs estimated by some of the parties in this proceeding are correct.[8] Even if this amount were to be shared among several systems, the additional cost added to the $1 to $2 billion investment needed to establish a LEO MSS system would be prohibitive.[9]

Constellation believes that better alternatives have been advanced in the comments that merit careful Commission consideration. Constellation supports these proposals because they would provide a more practical, lower cost approach to accommodating MSS in the bands while continuing to satisfy the requirements of existing users.[10] With respect to extending the broadcast auxiliary band above 2110 MHz to 2145 MHz, Constellation believes that progress is being made in finding solutions that would not require such action.[11] In particular, it appears that changes in technical standards and additional allocations now under consideration will allow

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[8] See e.g., Comments of Comsat Corporation at 11-12, Comments of the Society of Broadcast Engineers at 7, Comments of TRW, Inc. at 10.

[9] Id. at 14 and Comments of Personal Communications Satellite Corporation at 6-11. Constellation also finds merit in the argument that the personal communications service, as the initial displacing service provider, bears responsibility for relocation costs. See Comments of TRW, Inc. at 7-9.

[10] For example, Constellation supports the concept advanced by Iridium for a sunset relocation provision similar to that applied at 11 GHz for the direct broadcast satellite service. See Iridium Comments at 2-3.

[11] Another approach is the allocation of the 4660-4685 MHz band. See e.g., Joint Comments of the Association for Maximum Service Television, Inc. and Other Major Television Broadcasting Entities at 3-4.

the needs of auxiliary broadcasting to be met without reallocation of frequencies above 2110 MHz.[12]

With respect to the downlink band at 2165-2200 MHz, Constellation is not convinced of the necessity to require the relocation of terrestrial fixed facilities from this band. It may be possible to establish a practical power flux density limit on MSS downlink transmissions that adequately protect fixed receivers from interference.[13] With respect to potential interference from terrestrial fixed transmitters into MSS mobile receivers, it may be possible for MSS systems to operate on specific frequencies not being used by existing terrestrial facilities in the particular locale.[14] In any event, it would be more efficient and economical to selectively relocate terrestrial facilities only as needed.[15]

Spectrum Auctions

Constellation believes that persuasive arguments have been presented against the use of auctions to award MSS licenses in these bands.[16] The Commission has not adequately addressed the international ramifications on non-GSO system operators that would occur if auctions were

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[12] See Comsat Comments at 18-24. Even if some reallocation were necessary to satisfy electronic news gathering requirements, it is not clear that all fixed facilities must be relocated from the 2110-2145 MHz band. Instead, it may be sufficient to allocate these frequencies for ENG activities only in major metropolitan areas where there are a large number of television stations.

[13] Id. at 35-36.

[14] See e.g., Celsat America, Inc. Comments at 9-10. A Common worldwide terrestrial channelization plan would also be desirable.

[15] Id. at 8-10.

[16] See e.g., Comments of Comsat Corporation at 27-32, Comments of GE American Communications, Inc. at 13-20, Comments of Hughes Telecommunications at 2-5 and Comments of TRW, Inc. at 18-24.

auctions were used in the U.S. Moreover, the Commission has not adequately addressed the considerations mandated by statute before applying auctions to satellite services. It would be premature to specify auctions before the service rules are adopted because it is not yet apparent that mutual exclusivity would exist among applicants. In particular, the Commission should first focus on the development of technical criteria[17] and service rules that eliminate mutual exclusivity among applicants.[18]

CONCLUSION

In summary, Constellation supports the Commission's proposals to allocate additional spectrum to the MSS in the 2 GHz portion of the spectrum. However, Constellation also believes that the results of WRC-95 must be known and additional technical studies are needed before the Commission can implement MSS in these bands in the most economical manner given the current utilization of the bands. Moreover, to the extent that the bands are to be used for non-GSO MSS systems providing global service, an auction approach is not consistent with the Commission's statutory authority. For these reasons, Constellation has described what it

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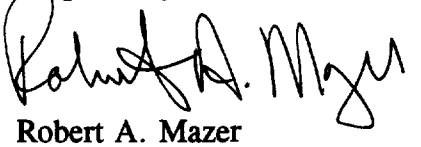
[17] For example, requiring use of code division multiple access techniques can maximize the likelihood of accommodating multiple MSS systems in these bands. See e.g., Comments of Celsat at 11-18.

[18] See e.g., Comments of Comsat Corporation at 25-27, Comments of GE American Communications, Inc. at 4-13. Constellation disagrees with Celsat that existing licensees should be precluded from holding licenses in the 2 GHz MSS bands. Comments of Celsat America, Inc. at 4-6. Existing MSS licensees in either the 1.6/2.4 GHz or the 1.5/1.6 GHz bands will need access to additional spectrum for their second generation systems because of the expected congestion in these bands as additional MSS systems are placed into service throughout the world.

believes will be an effective program to implement MSS in the 2 GHz bands with a minimum of disruption to existing users of these bands and at the lowest cost to MSS systems operators.

Respectfully submitted,



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CERTIFICATE OF SERVICE

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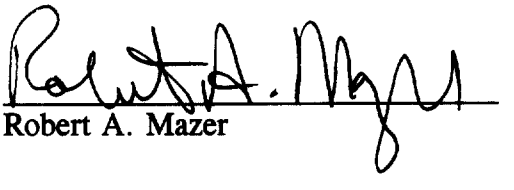

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